

What is claimed is:

Sub 1

1. A push-in connector for connecting electrical conductors, comprising:
a housing defining an enclosure and having a plurality of entry ports and receptacles formed therein, each entry port being aligned with and spaced from a receptacle, the entry ports providing access to the enclosure and the receptacles receiving electrical conductors inserted through the entry ports;

a conductive busbar mounted to the housing in the enclosure between the entry ports and the receptacles; and

a pressure spring mounted to the housing in the enclosure and engageable with electrical conductors inserted therein, the pressure spring being adapted to bias said electrical conductors into electrical engagement with the busbar.

2. The connector of claim 1 wherein the housing comprises a case and a cap attached to one another.

3. The connector of claim 2 wherein the entry ports are formed in the cap and the receptacles are formed in the case.

4. The connector of claim 2 wherein the busbar has a rear edge supported in the case and a front edge supported in the cap.

5. The connector of claim 4 wherein the cap has a plurality of retainer lugs for locating the busbar.

6. The connector of claim 1 wherein the busbar has an angled edge such that a conductor inserted into a receptacle will contact the busbar in at least two points.

B 7. The connector of claim 2 wherein the cap has a front block and a telescoping portion, the telescoping portion fitting inside the case.

8. The connector of claim 7 wherein the entry ports are formed in the front block and each entry port comprises a cylindrical saddle portion and a conical guide portion.

9. The connector of claim 7 wherein the front block defines a recess for receiving the pressure spring.

Sub 2 10. The connector of claim 7 wherein the front block defines an angled wall supporting the pressure spring prior to entry of a conductor.

11. A push-in connector for connecting electrical conductors, comprising:
a housing defining an enclosure and having a plurality of entry ports providing access to the enclosure, the housing further including a plurality of receptacles therein, each one of the plurality of receptacles being aligned with one of the plurality of entry ports;

at least one projection formed on the housing and extending into the enclosure;
an electrically conductive busbar fixedly mounted in the housing; and
a pressure spring mounted in the housing, the pressure spring including a base plate and a plurality of legs cantilevered from the base plate, the base plate engaging the projection to retain the base plate in a fixed position in the housing, the legs being normally positioned opposite the entry ports and spaced from the busbar and being flexibly movable such that the legs are deflected when electrical conductors are inserted into the housing, the pressure spring being engageable with inserted conductors to bias said electrical conductors into engagement with the busbar.

12. A push-in connector for connecting electrical conductors, comprising:
a housing defining an enclosure and a plurality of entry ports providing access to the enclosure;
an electrically conductive busbar fixedly mounted in the housing;
a pressure spring having a base plate mounted in the housing and at least two flexible legs connected to the base plate and arranged opposite the entry ports prior to insertion of an electrical conductor such that when an electrical conductor is inserted into the housing through an entry port the legs engage the inserted conductor and bias it into engagement with the busbar, the pressure spring being spaced from the busbar such that no part of the pressure spring contacts the busbar.

13. A push-in connector for connecting electrical conductors, comprising:

a housing including a case and a cap which cooperate to define an enclosure, the cap having a plurality of entry ports which provide access to the enclosure;

a conductive busbar having first and second edges, the first edge being supported in the case and the second edge being supported in the cap; and

a pressure spring mounted in the enclosure and engageable with electrical conductors inserted therein, the pressure spring being adapted to bias said electrical conductors into electrical engagement with the busbar.

14. The connector of claim 13 wherein the pressure spring comprises a base plate, the base plate having first and second edges, the first edge being supported in the case and the second edge being supported in the cap.

15. The connector of claim 14 further comprising a plurality of receptacles formed in the case, each one of the receptacles being aligned with one of the plurality of entry ports, and at least a portion of the pressure spring and the busbar being mounted intermediate the receptacles and the entry ports.

16. The connector of claim 14 further comprising at least one projection formed in the case, the first edge of the base plate engaging the projection to retain the first edge in a fixed position in the housing.

17. The connector of claim 13 further comprising at least one retainer lug formed in the cap, the first edge of the busbar engaging the lug to retain the first edge in a fixed position in the housing.

18. The connector of claim 13 wherein the pressure spring has a base plate mounted in the housing and at least two flexible legs connected to the base plate and arranged opposite the entry ports prior to insertion of an electrical conductor such that when an electrical conductor is inserted into the housing through an entry port the legs engage the inserted conductor and bias it into engagement with the busbar, the pressure spring being spaced from the busbar such that no part of the pressure spring contacts the busbar.

19. The connector of claim 18 further comprising a plurality of receptacles formed in the case, each one of the receptacles being aligned with one of the plurality of entry ports, and at least a portion of the pressure spring and the busbar being mounted intermediate the receptacles and the entry ports.

20. The connector of claim 13 further comprising a plurality of retention tabs formed on one of the cap and case, a plurality of retention slots formed in the other of the cap and case, the retention tabs fitting in cooperative engagement in the retention slots to hold the cap and case together.